## REMARKS

Reconsideration and allowance of the above-identified application are respectfully requested in view of the foregoing amendments and the following remarks. Claims 1-32 are currently pending.

The Drawings:

The drawings have been objected to under 37 C.F.R. 1.83(a) because the drawings must show every feature of the invention specified in the claims. The Office Action indicates that the plurality of layers of carbon graphite must be shown or the feature canceled from Claim 11. Applicant believes that the nature of the subject matter of Claim 11 does not admit of illustration. Specifically, as described in the specification at page 7, lines 26-27, there are preferably approximately 20 layers of graphite fibers in the plates. In view of the scale of the drawings and the numerous layers in the preferred embodiments, Applicant does not believe that illustration is appropriate. The reference numeral 23 for the layers has been deleted from the specification.

The Specification:

The disclosure has been objected to because of a typographical error on page 7. The error has been corrected by the foregoing amendment.

Rejections under 35 U.S.C. §112:

Claim 19 has been rejected under 35 U.S.C. §112, second paragraph, as being indefinite because Claim 19 should depend from Claim 18. The dependency of Claim 19 has been corrected by the foregoing amendments.

Rejections under 35 U.S.C. §102:

Claims 1, 7, 8, 14, 18, 19, and 20 have been rejected under 35 U.S.C. §102(b) as being anticipated by Beyl. Beyl describes a shoe having a spring set into the sole at the heal of the shoe. In Beyl, an upper plate 2 and a lower plate 3 are connected together in a

pivoting manner to allow oscillating movements of the plates in relation to one another. As is clearly shown and described in Beyl, the plates move with respect to one another in a single dimension. Beyl describes this one dimensional motion as an oscillating motion of the plates.

Claims 1, 8, and 20 have been amended to more clearly define the present invention by adding the recitation that "the separating element allowing independent movement of the first and second rigid plates with respect to one another in multiple dimensions." As described in the present specification, the rigid plates are separated by flexible separating elements which allow independent movement of the plates in multiple directions. See the specification on page 8, lines 22-25 and page 10, lines 10-15.

Beyl clearly does not teach or suggest independent movement of the first and second rigid plate in multiple dimensions. Accordingly, Claims 1, 8, and 20 and the claims depending therefrom, are allowable over Beyl.

Claims 1, 6-8, 12, 18, 19, and 20 have been rejected under 35 U.S.C. §102(b) as being anticipated by Sabol. Sabol describes a device to be worn beneath footwear providing a cantilevered leaf spring joined to and separated from a plateform which flexes during use. The device of Sabol provides relative motion in a single dimension. Specifically, Sabol describes at Column 6, lines 42-47 that "since the cantilevered spring 12 flexes about only one axis with respect to the user, this stops any rocking or any side-to-side motion being transmitted to the footwear 16".

In contrast to Sabol, the present invention includes first and second rigid plates which are movable with respect to one another in multiple dimensions which is important in accommodating the gait cycles of different wearers, in traversing uneven terrain, and in changing direction. Since Sabol does not teach or suggest a separating element allowing independent movement of the first and second rigid plates in multiple dimensions, Claims 1, 8, and 20 and the claims depending therefrom, are allowable over Sabol.

Rejections under 35 U.S.C. §103:

Claims 2, 3, 9-13, and 15 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Beyl in view of Schmid.

Schmid has been relied upon in the Office Action for its teaching of the use of graphite fibers in an energy return system. However, Schmid, like Beyl, lacks any teaching or suggestion of two rigid plates separated by a separating element which allows independent movement of the plates in multiple dimensions. Accordingly, Claims 2, 3, 9-13, and 15 should be allowed.

Claims 4, 5, 16, and 17 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Sabol.

Claim 5 has been rewritten in independent form and recites an article of footwear including an energy return system comprising first and second rigid plates and two separating elements disposed therebetween. The Office Action alleges that it would have been obvious to one of ordinary skill in the art to provide two separating elements instead of one in the energy return system of Sabol to enhance the energy return system. However, the addition of a separating element disposed in a toe area of the device of Sabol, would destroy the device of Sabol for its intended purpose. Specifically, Sabol is specifically directed to a device with a cantilever leaf spring which would be destroyed by the addition of a separating element in a toe area. In addition, Sabol specifically requires that the cantilevered leaf spring flexes only about one axis. This feature would also be destroyed by the addition of a second separating element disposed in a toe area. For these reasons, Claim 5 is clearly allowable over Sabol.

New Claims 21-32 have been added to further define the protection to which Applicant is entitled. The new dependent claims are allowable for at least the same reasons as the independent claims from which they depend.

In the event that there are any questions concerning this amendment or the application in general, the Examiner is respectfully urged to telephone the undersigned attorney so that prosecution may be expedited.

Respectfully submitted,

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## APPENDIX OF MARKED UP SPECIFICATION AND CLAIMS

In the Specification:

On page 7, replace paragraph 33 with the following new paragraph:

The energy return system 20 is preferably disposed between the outsole 16 and the upper portion [14]12 and, in the illustrated embodiment of FIG. 1, extends approximately the entire length of the shoe. The energy return system 20 includes upper and lower sole plates 22, 24 preferably made of an elastic material which is defined here as a rigid, high tensile strength material which has a modulus of elasticity of at least $32 \times 10^6$ lb/in.$^2$. Preferably, the material will also have a light weight property. A suitable material for the plates 22, 24 is a material made of carbon graphite fibers. Graphite has the advantages that it has high tensile strength, a high modulus of elasticity, is light weight, and as discussed below may be easily processed. The graphite plates 22, 24 may comprise a single layer of graphite fibers but preferably includes a plurality of layers [23]. The upper and lower plates 22, 24 are formed generally in accordance with the teaching of U.S. Patent No. 4,858,338 (Schmid), the entire contents of which are hereby incorporated by reference, wherein crossed fibers of a straight graphite strip and an angled graphite strip are used to cradle the first metatarsal head of the foot, provide maximum stiffness to resist torsion in both directions and activate the rocker bottom system, as discussed below. In the particular embodiment illustrated, however, a heel 18 having a greater height is provided. Further, in a preferred embodiment of the present invention, the graphite fibers will extend to the end of the shape of the plates 22, 24 and the fibers will be disposed in three different directions. There are preferably approximately twenty layers [23] of graphite fibers in the plates 22, 24 of the present invention, each layer providing increased shock absorption and energy release along the path of the gait cycle, as described in greater detail below.

On page 12, replace paragraph 44 with the following new paragraph:

Therefore, the present invention provides a shoe sole having an energy return system which may be particularly useful in athletic shoes. The shoe sole may be useful in activities such as walking, jogging, sprinting, aerobics, distance running, high jumping, poll [volting]vaulting, bicycling, and tennis. The number of graphite layers employed is selected to accommodate the weight and size of different users. Thus, the shoe sole may be used by persons of virtually all ages and body types.

In the Claims:

Please amend Claims 1, 5, 8, 19, and 20 as follows:

1. (Amended) An article of footwear comprising:

an upper;

an outsole defining a ground engaging surface;

a sole disposed between said upper and said outsole, said sole including an energy return system;

wherein said energy return system comprises a first rigid plate, a second rigid plate spaced a predetermined distance from said first rigid plate, and at least one separating element disposed therebetween to maintain the spacing between said plates, the separating element allowing independent movement of the first and second rigid plates with respect to one another in multiple dimensions.

112, 2nd

5. (Amended) [The] An article of footwear comprising:

an upper;

an outsole defining a ground engaging surface;

a sole disposed between said upper and said outsole, said sole including an energy return system;

wherein said energy return system comprises a first rigid plate, a second rigid plate spaced a predetermined distance from said first rigid plate, and [of claim 1 wherein said at least one separating element comprises] two separating elements disposed therebetween to maintain the spacing between said plates, a first one of said separating elements being disposed in a toe area of said article of footwear and a second one of said separating elements being disposed in a heel area of said article of footwear.

8. (Amended) An energy return system for use in a shoe sole, said system comprising:

a first rigid plate;

a second rigid plate spaced a predetermined distance from said first rigid plate;

at least one separating element maintaining the distance between said first and second rigid plates, the separating element allowing independent movement of the first and second rigid plates with respect to one another in multiple dimensions.

19. (Amended) An article of footwear incorporating the shoe sole of claim [16] 18.

20. (Amended) A shoe sole for an article of footwear comprising:

an outsole defining a ground engaging surface;

an upper rigid plate spaced from the outsole for attachment to an upper;

a lower rigid plate disposed between the outsole and the upper rigid plate; and

at least one separating element disposed between the upper and lower rigid plates to maintain the separation thereof, the separating element allowing independent movement of the first and second rigid plates with respect to one another in multiple dimensions.